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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. TSC-0015

First Inventor Mark H. Litchfield

Title System and Method for Determining
Orientation Based on Solar Positioning

Express Mail Label No. EV322656233US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. Applicant claims small entity status.
See 37 CFR 1.27.
3. Specification [Total Pages 29]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. Drawing(s) (35 U.S.C. 113) [Total Sheets 8]
5. Oath or Declaration. [Total Pages 3]
 - a. Newly executed (original or copy)
 - b. Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 18 completed)
 - i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. CD-ROM or CD-R (2 copies); or
 - ii. paper
 - c. Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. Assignment Papers (cover sheet & document(s))
10. 37 CFR 3.73(b) Statement (when there is an assignee) Power of Attorney
11. English Translation Document (if applicable)
12. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
13. Preliminary Amendment
14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP) of prior application No. _____ / _____

Prior application information: Examiner: _____

Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label	(Insert Customer No. or Attach bar code label here)			<input type="checkbox"/> or <input type="checkbox"/> Correspondence address below
Name	Mills & Onello, LLP			
Address	Eleven Beacon Street Suite 605			
City	Boston	State	MA	Zip Code
Country	USA	Telephone	(617) 994-4954	Fax
Name (Print/Type)	Anthony P. Onello, Jr.	Registration No. (Attorney/Agent)	38,572	
Signature	<i>Anthony P. Onello</i>			Date <i>August 18, 2003</i>

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

19972 U.S. PTO
10/642720
08/18/03

13146 U.S. PTO
08/18/03

PTO/SB/17 (08-03)

Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 1,312.00)

Complete if Known

Application Number	
Filing Date	Herewith
First Named Inventor	Mark H. Litchfield
Examiner Name	
Art Unit	
Attorney Docket No.	TSC-0015

METHOD OF PAYMENT (check all that apply)

Check Credit card Money Order Other None

 Deposit Account:

Deposit Account Number	50-1798
Deposit Account Name	Mills & Onello, LLP

The Director is authorized to: (check all that apply)

Charge fee(s) indicated below Credit any overpayments
 Charge any additional fee(s) during the pendency of this application
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,300	2453 650	Petition to revive - unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	\$40
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 40)

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	Anthony P. Onello, Jr.	Registration No. (Attorney/Agent)	38,572	Telephone (617) 994-4900
Signature	<i>Anthony P. Onello, Jr.</i>			Date <i>August 8, 2003</i>

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

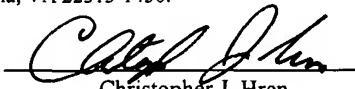
Applicant(s): Mark H. Litchfield, *et al.*
Filed: Herewith
Title: SYSTEM AND METHOD FOR DETERMINING ORIENTATION
BASED ON SOLAR POSITIONING

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.10

"Express Mail" Mailing Label Number EV322656233US I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

8-18-03

Date



Christopher J. Hren

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Sir:

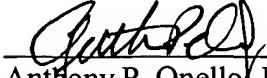
Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. Transmittal Letter;
2. New Utility Patent Application Transmittal;
3. Fee Transmittal for FY 2003;
4. New Patent Application;
5. Executed Declaration, Petition and Power of Attorney;
6. Eight (8) Pages of Informal Drawings (Figures 1-4, 5A-5C and 6-12);
7. Check in the amount of \$1,272.00 to cover requisite fee;
8. Assignment Recordation Form Cover Sheet - PTO-1595;
9. Executed Assignment;
10. Check in the amount of \$40.00 to cover recordation fee; and
11. Return Postcard

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: August 18, 2003
MILLS & O'NELLO LLP
Eleven Beacon Street, Suite 605
Boston, MA 02108
Telephone: (617) 994-4900
Facsimile: (617) 742-7774
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Anthony P. Onello, Jr.
Registration Number 38,572
Attorney for Applicant